

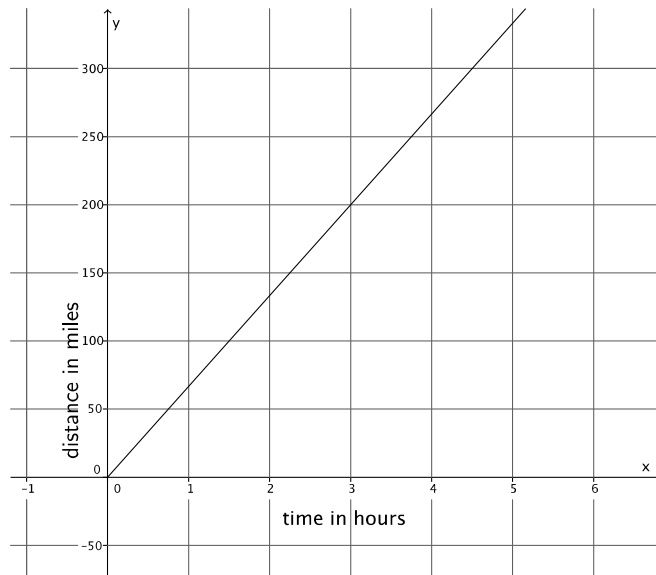
Lesson Summary

Problems involving constant rate can be expressed as linear equations in two variables.

When given information about two proportional relationships, their rates of change can be compared by comparing the slopes of the graphs of the two proportional relationships.

Problem Set

1.
 - a. Train A can travel a distance of 500 miles in 8 hours. Assuming the train travels at a constant rate, write the linear equation that represents the situation.
 - b. The figure represents the constant rate of travel for Train B.



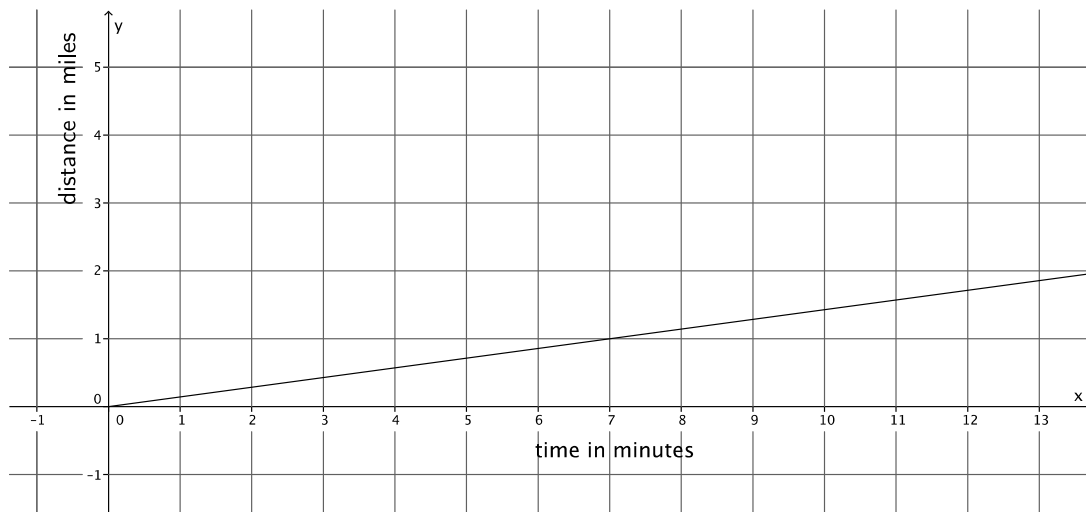
Which train is faster? Explain.

- 2.
- Natalie can paint 40 square feet in 9 minutes. Assuming she paints at a constant rate, write the linear equation that represents the situation.
 - The table of values below represents the area painted by Steven for a few selected time intervals. Assume Steven is painting at a constant rate.

Minutes (x)	Area Painted (y)
3	10
5	$\frac{50}{3}$
6	20
8	$\frac{80}{3}$

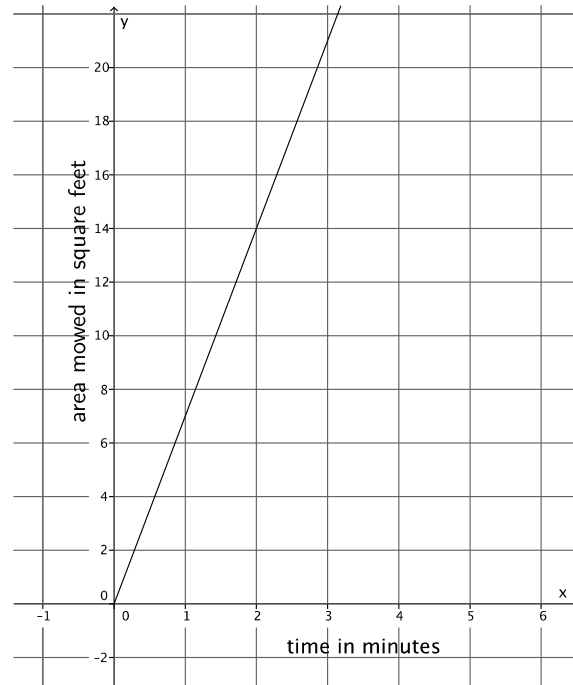
Who paints faster? Explain.

- 3.
- Bianca can run 5 miles in 41 minutes. Assuming she runs at a constant rate, write the linear equation that represents the situation.
 - The figure below represents Cynthia's constant rate of running.

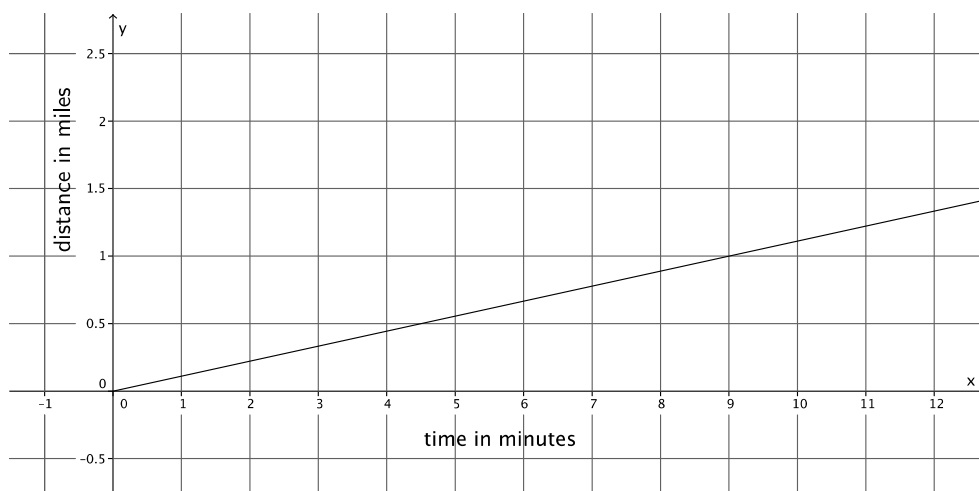


Who runs faster? Explain.

- 4.
- Geoff can mow an entire lawn of 450 square feet in 30 minutes. Assuming he mows at a constant rate, write the linear equation that represents the situation.
 - The figure represents Mark's constant rate of mowing a lawn.
Who mows faster? Explain.



- 5.
- Juan can walk to school, a distance of 0.75 mile, in 8 minutes. Assuming he walks at a constant rate, write the linear equation that represents the situation.
 - The figure below represents Lena's constant rate of walking.



Who walks faster? Explain.